

WHAT IS CLAIMED IS:

1. A method of manufacturing an image displaying apparatus, comprising the steps of:

5 a: preparing a first substrate on which phosphor exciting means is disposed and a second substrate on which phosphors emitting light by said phosphor exciting means is disposed under the vacuum atmosphere;

10 b: carrying one or both of said first and second substrates into a getter processing chamber in the vacuum atmosphere under the vacuum atmosphere, and subjecting to getter processing said one substrate carried, or one or both of said substrates carried; and

15 c: carrying said first and second substrates into a seal processing chamber in the vacuum atmosphere under the vacuum atmosphere, and heat sealing said substrates in an opposing state.

2. A method of manufacturing an image displaying apparatus according to claim 1, wherein said steps a, b  
20 and c are steps set on one line.

3. A method of manufacturing an image displaying apparatus according to claim 1, wherein said steps a, b  
25 and c are steps set on one line, and a heat shielding member is disposed between said getter processing chamber and said seal processing chamber.

4. A method of manufacturing an image displaying apparatus according to claim 3, wherein said heat shielding member is formed of reflective metal.

5 5. A method of manufacturing an image displaying apparatus according to claim 1, wherein said steps a, b and c are steps set on one line, and a load lock is disposed between said getter processing chamber and said seal processing chamber.

10 6. A method of manufacturing an image displaying apparatus according to claim 1, wherein said steps a, b and c are steps set on a star arrangement.

15 7. A method of manufacturing an image displaying apparatus according to claim 1, wherein said steps a, b and c are steps set on a star arrangement, and said getter processing chamber and said seal processing chamber are partitioned by an independent chamber.

20 8. A method of manufacturing an image displaying apparatus according to claim 1, wherein said phosphor exciting means has electron beam emitting means.

25 9. A method of manufacturing an image displaying apparatus according to claim 1, wherein said first substrate has an envelope fixedly disposed around said

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first substrate in advance.

10. A method of manufacturing an image displaying  
apparatus according to claim 1, wherein said first  
5 substrate has a spacer fixedly disposed inside said  
first substrate in advance.

11. A method of manufacturing an image displaying  
apparatus according to claim 1, wherein said first  
10 substrate has an envelope fixedly disposed around said  
first substrate and a spacer fixedly disposed inside  
said first substrate.

12. A method of manufacturing an image displaying  
15 apparatus according to claim 1, wherein said second  
substrate has an envelope fixedly disposed around said  
second substrate in advance.

13. A method of manufacturing an image displaying  
20 apparatus according to claim 1, wherein said second  
substrate has a spacer fixedly disposed inside said  
second substrate in advance.

14. A method of manufacturing an image displaying  
25 apparatus according to claim 1, wherein said second  
substrate has an envelope fixedly disposed around said  
second substrate and a spacer fixedly disposed inside

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said first substrate.

15. A method of manufacturing an image displaying  
apparatus according to claim 1, wherein said getter  
5 used in the step b is an evaporation type getter.

16. A method of manufacturing an image displaying  
apparatus according to claim 1, wherein said  
evaporation type getter is a barium getter.  
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17. A method of manufacturing an image displaying  
apparatus according to claim 1, wherein said sealing  
material used in the step c is a low melting point  
material.  
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18. A method of manufacturing an image displaying  
apparatus according to claim 17, wherein said low  
melting point material is a low melting point metal or  
an alloy of such a metal.  
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19. A method of manufacturing an image displaying  
apparatus according to claim 18, wherein said low  
melting point metal is indium or an alloy of indium.

20. A method of manufacturing an image displaying  
apparatus according to claim 17, wherein said low  
melting point material is frit glass.  
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21. A method of manufacturing an image displaying apparatus, comprising the steps of:

a: preparing a first substrate on which phosphor  
exciting means is disposed and a second substrate on  
5 which phosphors emitting light by said phosphor  
exciting means is disposed under the vacuum atmosphere;

b: carrying said first and second substrates into  
a bake processing chamber in the vacuum atmosphere  
under the vacuum atmosphere and subjecting to bake  
10 processing both said substrates at predetermined  
temperature; and

c: carrying said first and second substrates into  
a seal processing chamber in the vacuum atmosphere  
under the vacuum atmosphere, and heat sealing said  
15 substrates in an opposing state.

22. A method of manufacturing an image displaying apparatus according to claim 21, wherein said steps a,  
b and c are steps set on one line.

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23. A method of manufacturing an image displaying apparatus according to claim 21, wherein said steps a,  
b and c are steps set on one line, and a heat shielding  
member is disposed between said bake processing chamber  
25 and said seal processing chamber.

24. A method of manufacturing an image displaying

apparatus according to claim 23, wherein said heat shielding member is formed of reflective metal.

25. A method of manufacturing an image displaying  
5 apparatus according to claim 21, wherein said steps a, b and c are steps set on one line, and a load lock is disposed between said bake processing chamber and said seal processing chamber.

10 26. A method of manufacturing an image displaying apparatus according to claim 21, wherein said steps a, b and c are steps set on a star arrangement.

15 27. A method of manufacturing an image displaying apparatus according to claim 21, wherein said steps a, b and c are steps set on a star arrangement, and said bake processing chamber and said seal processing chamber are partitioned by an independent chamber.

20 28. A method of manufacturing an image displaying apparatus according to claim 21, wherein said phosphor exciting means has electron beam emitting means.

25 29. A method of manufacturing an image displaying apparatus according to claim 21, wherein said first substrate has an envelope fixedly disposed around said first substrate in advance.

30. A method of manufacturing an image displaying apparatus according to claim 21, wherein said first substrate has a spacer fixedly disposed inside said first substrate in advance.

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31. A method of manufacturing an image displaying apparatus according to claim 21, wherein said first substrate has an envelope fixedly disposed around said first substrate and a spacer fixedly disposed inside said first substrate.

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32. A method of manufacturing an image displaying apparatus according to claim 21, wherein said second substrate has an envelope fixedly disposed around said second substrate in advance.

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33. A method of manufacturing an image displaying apparatus according to claim 21, wherein said second substrate has a spacer fixedly disposed inside said second substrate in advance.

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34. A method of manufacturing an image displaying apparatus according to claim 21, wherein said second substrate has an envelope fixedly disposed around said second substrate and a spacer fixedly disposed inside said first substrate.

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35. A method of manufacturing an image displaying apparatus according to claim 21, wherein said sealing material used in the step c is a low melting point material.

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36. A method of manufacturing an image displaying apparatus according to claim 35, wherein said low melting point material is a low melting point metal or an alloy of such a metal.

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37. A method of manufacturing an image displaying apparatus according to claim 36, wherein said low melting point metal is indium or an alloy of indium.

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38. A method of manufacturing an image displaying apparatus according to claim 35, wherein said low melting point material is frit glass.

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39. A method of manufacturing an image displaying apparatus, comprising the steps of:

a: preparing a first substrate on which phosphor exciting means is disposed and a second substrate on which phosphors emitting light by said phosphor exciting means is provided under the vacuum atmosphere;

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b: carrying said first and second substrates into a bake processing chamber in the vacuum atmosphere under the vacuum atmosphere and subjecting to bake

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processing both said substrates at predetermined temperature;

5 c: carrying one or both of said first and second substrates into a getter processing chamber in the vacuum atmosphere under the vacuum atmosphere, and subjecting to getter processing said one substrate carried or one or both of said substrates carried; and

10 d: carrying said first and second substrates into a seal processing chamber in the vacuum atmosphere under the vacuum atmosphere, and heat sealing said substrates in an opposing state.

15 40. A method of manufacturing an image displaying apparatus according to claim 39, wherein said steps a, b, c and d are steps set on one line.

20 41. A method of manufacturing an image displaying apparatus according to claim 39, wherein the steps a, b, c and d are steps set on one line, and a heat shielding member is disposed between said bake processing chamber and said getter processing chamber, between said bake processing chamber and said seal processing chamber, or between said bake processing chamber, said getter processing chamber and said seal processing chamber, respectively.

42. A method of manufacturing an image displaying

apparatus according to claim 41, wherein said heat shielding member is formed of a reflective metal.

43. A method of manufacturing an image displaying  
5 apparatus according to claim 39, wherein the steps a,  
b, c and d are steps set on one line, and a load lock  
is disposed said bake processing chamber and said  
getter processing chamber, between said bake processing  
chamber and said seal processing chamber, or between  
10 said bake processing chamber, said getter processing  
chamber and said seal processing chamber, respectively.

44. A method of manufacturing an image displaying  
apparatus according to claim 39, wherein the steps a,  
15 b, c and d are steps set on a star arrangement.

45. A method of manufacturing an image displaying  
apparatus according to claim 39, wherein the steps a,  
b, c and d are arranged on a star arrangement, and said  
20 bake processing chamber, said getter processing chamber  
and said seal processing chamber are partitioned by an  
independent chamber.

46. A method of manufacturing an image displaying  
25 apparatus according to claim 39, wherein said phosphor  
exciting means has electron beam emitting means.

47. A method of manufacturing an image displaying apparatus according to claim 39, wherein said first substrate has an envelope fixedly disposed around said first substrate in advance.

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48. A method of manufacturing an image displaying apparatus according to claim 39, wherein said first substrate has a spacer fixedly disposed inside said first substrate in advance.

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49. A method of manufacturing an image displaying apparatus according to claim 39, wherein said first substrate has an envelope fixedly disposed around said first substrate and a spacer fixedly disposed inside said first substrate.

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50. A method of manufacturing an image displaying apparatus according to claim 39, wherein said second substrate has an envelope fixedly disposed around said second substrate in advance.

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51. A method of manufacturing an image displaying apparatus according to claim 39, wherein said second substrate has a spacer fixedly disposed inside said second substrate in advance.

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52. A method of manufacturing an image displaying

apparatus according to claim 39, wherein said second substrate has an envelope fixedly disposed around said second substrate and a spacer fixedly disposed inside said first substrate.

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53. A method of manufacturing an image displaying apparatus according to claim 39, wherein said getter used in the step b is an evaporation type getter.

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54. A method of manufacturing an image displaying apparatus according to claim 39, wherein said evaporation type getter is a barium getter.

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55. A method of manufacturing an image displaying apparatus according to claim 39, wherein said sealing material used in the step c is a low melting point material.

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56. A method of manufacturing an image displaying apparatus according to claim 55, wherein said low melting point material is a low melting point metal or an alloy of such a metal.

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57. A method of manufacturing an image displaying apparatus according to claim 56, wherein said low melting point metal is indium or an alloy of indium.

58. A method of manufacturing an image displaying apparatus according to claim 55, wherein said low melting point material is frit glass.

5 59. A method of manufacturing an image displaying apparatus, comprising the steps of:

a: preparing a first substrate on which phosphor exciting means is disposed and a second substrate on which phosphors emitting light by said phosphor  
10 exciting means is disposed under the vacuum atmosphere;

b: carrying said first and second substrates into a bake processing chamber in the vacuum atmosphere under the vacuum atmosphere and subjecting to bake processing both said substrates at predetermined  
15 temperature;

c: carrying one or both of said first and second substrates into a first getter processing chamber in the vacuum atmosphere under the vacuum atmosphere, and subjecting to first getter processing said one  
20 substrate carried or one or both of said substrates carried;

d: carrying one or both of said first and second substrates into an electron beam clean processing chamber in the vacuum atmosphere under the vacuum  
25 atmosphere, and subjecting to electron beam clean processing said one substrate carried or one or both of said substrates carried;

e: carrying one or both of said first and second substrates into a second getter processing chamber in the vacuum atmosphere under the vacuum atmosphere, and subjecting to second getter processing said one  
5 substrate carried or one or both of said substrates carried; and

f: carrying said first and second substrates into a seal processing chamber in the vacuum atmosphere under the vacuum atmosphere, and heat sealing said  
10 substrates in an opposing state.

60. A method of manufacturing an image displaying apparatus according to claim 59, wherein said steps a, b, c, d, e and f are steps set on one line.  
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61. A method of manufacturing an image displaying apparatus according to claim 59, wherein the steps a, b, c, d, e and f are steps set on one line, and a heat shielding member is disposed between said bake  
20 processing chamber and said first getter processing chamber, between said first getter processing chamber and said electron beam clean processing chamber, between said electron beam clean processing chamber and said second getter processing chamber, or between said  
25 second getter processing chamber and said seal processing chamber.

62. A method of manufacturing an image displaying apparatus according to claim 61, wherein said heat shielding member is formed of a reflective metal.

5           63. A method of manufacturing an image displaying apparatus according to claim 59, wherein the steps a, b, c, d, e and f are steps set on one line, and a load lock is disposed between said bake processing chamber and said first getter processing chamber, between said  
10 first getter processing chamber and said electron beam clean processing chamber, between said electron beam clean processing chamber and said second getter processing chamber, or between said second getter processing chamber and said seal processing chamber.

15           64. A method of manufacturing an image displaying apparatus according to claim 59, wherein the steps a, b, c, d, e and f are set on a star arrangement.

20           65. A method of manufacturing an image displaying apparatus according to claim 59, wherein the steps a, b, c, d, e and f are set on a star arrangement, and said bake processing chamber, said first getter  
25 processing chamber, said electron beam clean processing chamber, said second getter processing chamber and said seal processing chamber are partitioned by independent chambers.

66. A method of manufacturing an image displaying apparatus according to claim 59, wherein said phosphor exciting means has electron beam emitting means.

5           67. A method of manufacturing an image displaying apparatus according to claim 59, wherein said first substrate has an envelope fixedly disposed around said first substrate in advance.

10           68. A method of manufacturing an image displaying apparatus according to claim 59, wherein said first substrate has a spacer fixedly disposed inside said first substrate in advance.

15           69. A method of manufacturing an image displaying apparatus according to claim 59, wherein said first substrate has an envelope fixedly disposed around said first substrate and a spacer fixedly disposed inside said first substrate.

20           70. A method of manufacturing an image displaying apparatus according to claim 59, wherein said second substrate has an envelope fixedly disposed around said second substrate in advance.

25           71. A method of manufacturing an image displaying apparatus according to claim 59, wherein said second



substrate has a spacer fixedly disposed inside said second substrate in advance.

72. A method of manufacturing an image displaying  
5 apparatus according to claim 59, wherein said second substrate has an envelope fixedly disposed around said second substrate and a spacer fixedly disposed inside said first substrate.

10 73. A method of manufacturing an image displaying apparatus according to claim 59, wherein said getter used in the steps b and d is an evaporation type getter.

15 74. A method of manufacturing an image displaying apparatus according to claim 73, wherein said evaporation type getter is a barium getter.

20 75. A method of manufacturing an image displaying apparatus according to claim 59, wherein said sealing material used in the step e is a low melting point material.

25 76. A method of manufacturing an image displaying apparatus according to claim 75, wherein said low melting point material is a low melting point metal or an alloy of such a metal.

77. A method of manufacturing an image displaying apparatus according to claim 76, wherein said low melting point metal is indium or an alloy of indium.

5           78. A method of manufacturing an image displaying apparatus according to claim 75, wherein said low melting point material is frit glass.

10           79. An apparatus for manufacturing an image displaying apparatus, comprising:

          a: a conveying means for conveying a first substrate provided with a first member for an image displaying apparatus and a second substrate provided with a second member for an image displaying apparatus;

15           b: a first vacuum chamber in which one or both of said first and second substrates can be carried under the vacuum atmosphere by the conveying means;

          c: getter giving means arranged in said first vacuum chamber having a getter precursor and getter  
20           activating means for activating said getter precursor;

          d: a second vacuum chamber in which said first and second substrates can be carried under the vacuum atmosphere by the conveying means;

          e: substrate arranging means, arranged in said  
25           second vacuum chamber, for arranging said first and second substrates in positions opposite to each other by orienting said first and second members for an image

displaying apparatus toward inside; and

f: sealing means, arranged in said second vacuum chamber, for heat sealing said first and second substrates arranged in opposing positions by said  
5 substrate arranging means at predetermined temperature.

80. A manufacturing apparatus according to claim 79, wherein said first vacuum chamber and said second vacuum chamber are arranged on one line.

81. A manufacturing apparatus according to claim 79, wherein said first vacuum chamber and said second vacuum chamber are arranged on one line, and each chamber is partitioned by a heat shielding member.

82. A manufacturing apparatus according to claim 79, wherein said first vacuum chamber and said second vacuum chamber are arranged on one line, and each chamber is partitioned by a load lock.

83. A manufacturing apparatus according to claim 79, wherein said first vacuum chamber and said second vacuum chamber are arranged in a star arrangement, and each chamber is partitioned by an independent chamber.

84. An apparatus for manufacturing an image displaying apparatus, comprising:

a: a conveying means for conveying a first substrate provided with a first member for an image displaying apparatus and a second substrate provided with a second member for an image displaying apparatus;

5        b: a first vacuum chamber in which said first and second substrates can be carried under the vacuum atmosphere by the conveying means;

10       c: baking means, arranged in said first vacuum chamber, for bake processing said carried first and second substrates by heating said first and second substrates;

15       d: a second vacuum chamber in which said first and second substrates can be carried under the vacuum atmosphere by the conveying means;

20       e: substrate arranging means, arranged in said second vacuum chamber, for arranging said first and second substrates in positions opposite to each other by orienting said first and second members for an image displaying apparatus toward inside; and

25       f: sealing means, arranged in said second vacuum chamber, for heat sealing said first and second substrates arranged in opposing positions by said substrate arranging means at predetermined temperature.

85. A manufacturing apparatus according to claim 84, wherein said first vacuum chamber and said second vacuum chamber are arranged on one line.

86. A manufacturing apparatus according to claim 85, wherein said first vacuum chamber and said second vacuum chamber are arranged on one line, and each chamber is partitioned by a heat shielding member.

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87. A manufacturing apparatus according to claim 85, wherein said first vacuum chamber and said second vacuum chamber are arranged on one line, and each chamber is partitioned by a load lock.

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88. A manufacturing apparatus according to claim 85, wherein said first vacuum chamber and said second vacuum chamber are arranged in a star arrangement, and each chamber is partitioned by an independent chamber.

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89. An apparatus for manufacturing an image displaying apparatus, comprising:

a: a conveying means for conveying a first substrate provided with a first member for an image displaying apparatus and a second substrate provided with a second member for an image displaying apparatus;

b: a first vacuum chamber in which said first and second substrates can be carried under the vacuum atmosphere by the conveying means;

c: baking means, arranged in said first vacuum chamber, for bake processing said carried first and second substrates by heating said first and second

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substrates;

d: a second vacuum chamber in which said first and second substrates can be carried under the vacuum atmosphere by the conveying means;

5 e: getter giving means arranged in said second vacuum chamber having a getter precursor and getter activating means for activating said getter precursor;

f: a third vacuum chamber in which said first and second substrates can be carried under the vacuum  
10 atmosphere by the conveying means;

g: substrate arranging means, arranged in said third vacuum chamber, for arranging said first and second substrates in positions opposite to each other by orienting said first and second members for an image  
15 displaying apparatus toward inside; and

h: sealing means, arranged in said third vacuum chamber, for heat sealing said first and second substrates arranged in opposing positions by said substrate arranging means at predetermined temperature.

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90. A manufacturing apparatus according to claim 89, wherein said first vacuum chamber, said second vacuum chamber and said third vacuum chamber are arranged on one line.

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91. A manufacturing apparatus according to claim 89, wherein said first vacuum chamber, said second

vacuum chamber and said third vacuum chamber are arranged on one line, and each chamber is partitioned by a heat shielding member.

5           92. A manufacturing apparatus according to claim 89, wherein said first vacuum chamber, said second vacuum chamber and said third vacuum chamber are arranged on one line, and each chamber is partitioned by a load lock.

10           93. A manufacturing apparatus according to claim 89, wherein said first vacuum chamber, said second vacuum chamber and said third vacuum chamber are provided in a star arrangement, and each chamber is  
15 partitioned by an independent chamber.

          94. An apparatus for manufacturing an image displaying apparatus, comprising:  
          a: a conveying means for conveying a first  
20 substrate provided with a first member for an image displaying apparatus and a second substrate provided with a second member for an image displaying apparatus;  
          b: a first vacuum chamber in which said first and  
25 second substrates can be carried under the vacuum atmosphere by the conveying means;  
          c: baking means, arranged in said first vacuum chamber, for bake processing said carried first and

second substrates by heating said first and second substrates;

d: a second vacuum chamber in which said first and second substrates can be carried under the vacuum  
5 atmosphere by the conveying means;

e: getter giving means arranged in said second vacuum chamber having a getter precursor and getter activating means for activating said getter precursor;

f: a third vacuum chamber in which one or both of  
10 said first and second substrates can be carried under the vacuum atmosphere by said conveying means;

g: electron beam cleaning means, arranged in said third vacuum chamber, for applying electron beam clean processing by irradiating electron beams;

15 h: a fourth vacuum chamber in which one or both of said first and second substrates can be carried under the vacuum atmosphere by said conveying means;

i: second getter giving means arranged in said fourth vacuum chamber having a getter precursor and  
20 getter activating means for activating said getter precursor;

j: a fifth vacuum chamber in which one or both of said first and second substrates can be carried under the vacuum atmosphere by said conveying means;

25 k: substrate arranging means, arranged in said fifth vacuum chamber, for arranging said first and second substrates in positions opposite to each other



by orienting said first and second members for an image displaying apparatus toward inside; and

1: sealing means, arranged in said fifth vacuum chamber, for heat sealing said first and second  
5 substrates arranged in opposing positions by said substrate arranging means at predetermined temperature.

95. A manufacturing apparatus according to claim 94, wherein said first vacuum chamber, said second  
10 vacuum chamber, said third vacuum chamber, said fourth vacuum chamber and said fifth vacuum chamber are arranged on one line.

96. A manufacturing apparatus according to claim  
15 94, wherein said first vacuum chamber, said second vacuum chamber, said third vacuum chamber, said fourth vacuum chamber and said fifth vacuum chamber are arranged on one line, and each chamber is partitioned by a heat shielding member.

20 97. A manufacturing apparatus according to claim 94, wherein said first vacuum chamber, said second vacuum chamber, said third vacuum chamber, said fourth vacuum chamber and said fifth vacuum chamber are  
25 arranged on one line, and each chamber is partitioned by a load lock.

98. A manufacturing apparatus according to claim 94, wherein said first vacuum chamber, said second vacuum chamber, said third vacuum chamber, said fourth vacuum chamber and said fifth vacuum chamber are provided in a star arrangement, and each chamber is partitioned by an independent chamber.

99. A manufacturing apparatus according to any one of claims 79, 84, 89 and 94, wherein said first member for an image displaying apparatus is an electron beam emitting device, and said second member for an image displaying apparatus is a phosphor.

100. An apparatus for manufacturing an image displaying apparatus, comprising:

a: a conveying means for conveying a first substrate provided with a first member for an image displaying apparatus and a second substrate provided with a second member for an image displaying apparatus;

b: a first decompression chamber in which said first substrate carried in by said conveying means can be carried without being exposed to the atmosphere while maintaining a decompressed state;

c: getter giving means arranged in said first decompression chamber having a getter precursor and getter activating means for activating said getter precursor;

d: a second decompression chamber, to which getters are given, in which said first and second substrates can be carried without being exposed to the atmosphere;

5 e: substrate arranging means, arranged in said second decompression chamber, for arranging said first and second substrates in positions opposite to each other by orienting said first and second members for an image displaying apparatus toward inside; and

10 f: sealing means, arranged in said second decompression chamber, for sealing said first and second substrates arranged in opposing positions by said substrate arranging means by heating said first and second substrates at predetermined temperature.

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101. An apparatus for manufacturing an image displaying apparatus, comprising:

a: a conveying means for conveying a first substrate provided with a first member for an image displaying apparatus and a second substrate provided with a second member for an image displaying apparatus;

20 b: a first decompression chamber in which said first and second substrates carried in by said conveying means can be carried without being exposed to the atmosphere while maintaining a decompressed state;

25 c: getter giving means arranged in said first decompression chamber having a getter precursor and

getter activating means for activating said getter precursor;

d: a second decompression chamber in which said first and second substrates in said first  
5 decompression chamber can be carried without being exposed to the atmosphere;

e: substrate arranging means, arranged in said second decompression chamber, for arranging said first and second substrates in positions opposite to each  
10 other by orienting said first and second members for an image displaying apparatus toward inside; and

f: sealing means, arranged in said second decompression chamber, for sealing said first and second substrates arranged in opposing positions by  
15 said substrate arranging means by heating said first and second substrates at predetermined temperature.

102. An apparatus for manufacturing an image displaying apparatus, comprising:

20 a: a conveying means for conveying a first substrate provided with a first member for an image displaying apparatus and a second substrate provided with a second member for an image displaying apparatus;

b: a first decompression chamber in which said  
25 first and second substrates carried in by said conveying means can be carried without being exposed to the atmosphere while maintaining a decompressed state;

c: baking means, arranged in said first  
decompression chamber, for bake processing said carried  
first and second substrates by heating said substrates;

d: first getter giving means, arranged in said  
5 first decompression chamber or a second decompression  
chamber in which said first and second substrates can  
be carried from said first decompression chamber  
without being exposed to the atmosphere, having a  
getter precursor and getter activating means for  
10 activating said getter precursor;

e: a third decompression chamber in which said  
first and second substrates can be carried from said  
first or second decompression chamber without being  
exposed to the atmosphere;

15 f: substrate arranging means, arranged in said  
third decompression chamber, for arranging said first  
and said second substrates in positions opposite to  
each other by orienting said first and second members  
for an image displaying apparatus toward inside; and

20 g: sealing means, arranged in said third  
decompression chamber, for sealing said first and  
second substrates arranged in opposing positions by  
said substrate arranging means by heating said first  
and second substrates at predetermined temperature.

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103. An apparatus for manufacturing an image  
displaying apparatus, comprising:

a: a conveying means for conveying a first substrate provided with a first member for an image displaying apparatus and a second substrate provided with a second member for an image displaying apparatus;

5        b: a first decompression chamber in which said first and second substrates carried in by the conveying means can be carried without being exposed to the atmosphere while maintaining a decompressed state;

10        c: baking means, arranged in said first decompression chamber, for bake processing said carried first and second substrates by heating said substrates;

15        d: first getter giving means, arranged in said first decompression chamber or a second decompression chamber in which said first and second substrates can be carried from said first decompression chamber without being exposed to the atmosphere, having a getter precursor and getter activating means for activating said getter precursor;

20        e: a third decompression chamber in which said first and second substrates can be carried from said first or second decompression chamber without being exposed to the atmosphere;

25        f: electron beam cleaning means, arranged in said third decompression chamber, for cleaning said first and said second substrates by irradiating electron beams to said first and second substrates;

g: a fourth decompression chamber in which said

first and second substrates can be carried from said third decompression chamber without being exposed to the atmosphere;

h: second getter giving means, arranged in said  
5 fourth decompression chamber, having a getter precursor and getter activating means for activating said getter precursor;

i: a fifth decompression chamber in which said  
10 first and second substrates can be carried from said fourth decompression chamber without being exposed to the atmosphere;

j: substrate arranging means, arranged in said  
15 fifth decompression chamber, for arranging said first and second substrates in positions opposite to each other by orienting said first and second members for an image displaying apparatus toward inside; and

k: sealing means, arranged in said fifth  
20 decompression chamber, for sealing said first and second substrates arranged in opposing positions by said substrate arranging means by heating said first and second substrates at predetermined temperature.

104. A manufacturing apparatus according to any  
25 one of claims 100 through 103, wherein said first decompression chamber contains inert gasses or hydrogen gas under decompression.

105. A manufacturing apparatus according to any one of claims 100 through 103, wherein said second decompression chamber contains inert gasses or hydrogen gas under decompression.

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106. A manufacturing apparatus according to any one of claims 100 through 103, wherein said third decompression chamber contains inert gasses or hydrogen gas under decompression.

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107. A manufacturing apparatus according to any one of claims 100 through 103, wherein said fourth decompression chamber contains inert gasses or hydrogen gas under decompression.

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108. A manufacturing apparatus according to any one of claims 100 through 103, wherein said fifth decompression chamber contains inert gasses or hydrogen gas under decompression.

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109. A manufacturing apparatus according to any one of claims 100 through 103, wherein said first member for an image displaying apparatus is a plasma generating device, and said second member for an image displaying apparatus is a phosphor or a color filter.

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